Canada Mortgage and Housing Corporation
Société canadienne d'hypothèques et de logement

Housing in Canada 1945 to 1986

AN OVERVIEW AND LESSONS LEARNED

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Housing in Canada
1945 to 1986

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1987

International Year of
Shelter for the Homeless

Issued under the authority of
the Honourable Stewart McInnes,
Minister Responsible for Canada Mortgage and Housing Corporation

Foreword

Since 1945, housing has played a prominent role in Canada's development. We have achieved remarkable levels of new residential construction and renovation which have transformed the environment in which we live.

This document summarizes two important studies recently commissioned to look back over our experience and the evolution of our housing industry during the last forty years. These major monographs have sought to identify the most significant changes in housing which have emerged during the period, describe the lessons we have learned and illustrate which problems and issues remain to be resolved.

We believe that these retrospective studies will clearly show that we have a history of monumental accomplishment in housing in Canada. Similarly, we believe that in observing our progress dispassionately, we can also see our limitations. It is hoped that this examination will guide us through the complexities of future housing issues and encourage us to build upon the strengths we have developed.

I am pleased to present this document as a Canadian contribution to the stock of knowledge about housing in this significant year which has been dedicated to the problems of the homeless in the world.

Stewart McInnes
Minister of Public Works and
Minister Responsible for
Canada Mortgage and Housing Corporation

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INTRODUCTION

This document summarizes two important studies of Canada's postwar experience in housing. Commissioned by Canada Mortgage and Housing Corporation, the housing agency of the Government of Canada, the studies have brought together the views of academics, builders and planners in a deliberate re-examination of our progress in housing and the development of our housing industry.

The forty years which have elapsed since the end of the Second World War have been an era of dramatic change and growth in Canada. We have seen entirely new cityscapes arise. We have tripled our housing stock and rehabilitated the best of our older dwellings. Canadians are now among the best housed people in the world. It is timely, then, to look back at the change and growth which have occurred for the guidance they provide in establishing the housing agenda for the future. This document reflects such a retrospective and forward looking process.

The document is a summary of two research monographs: "Housing Progress in Canada since 1945," for which Professor John Miron of the University of Toronto was the editor and principal investigator; and "The Residential Construction Industry: Perspective and Prospective," which was produced under the management of Dr. Frank Clayton, President of Clayton Research Associates, Toronto. Both monographs will be published during 1987. The Introduction provides some basic information about Canada, the growth of the population since 1945, and the production of new housing during this period. The paper ends with a brief conclusion.

Figure 1 **Map of Canada, Showing Provinces and Territories and Some Major Cities**

Canada's 25,116,000 inhabitants occupy the second largest country on earth — 9.97 million hectares of land area. See Figure 1. This vast country comprises six distinct regions, each having differing geographic, economic and settlement characteristics. See Table 1.

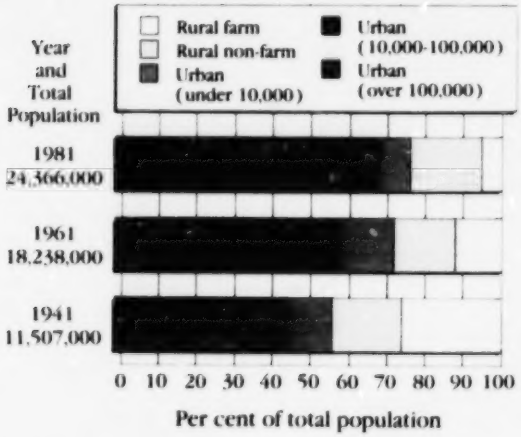
While this summary document is limited to generalizations and broad trends in describing Canada's postwar housing experiences, it must be remembered that these trends are amalgams of the differing activities which took place in these distinct regions.

Table 1 **Canada's Six Major Regions by Percentage of Population and by Province and Territory, 1981**

Region	% of 1981 Population	Provinces and Territories
Atlantic	9	Nova Scotia, Newfoundland, Prince Edward Island and New Brunswick
Québec	26	Québec
Ontario	36	Ontario
Prairies	18	Manitoba, Saskatchewan and Alberta
British Columbia	11	British Columbia
Northern	0.3	Yukon and Northwest Territories

During the study period, the country became increasingly urbanized. See Figure 2. From 1941 to 1981 the national population doubled, and the proportion of it in urban areas rose from 55 to 76 per cent. This growth was focused on larger cities (exceeding 100,000), which expanded from containing 30 per cent of the national population to 53 per cent in 1981. Both smaller urban areas and rural non-farm residences matched the national rate of growth.

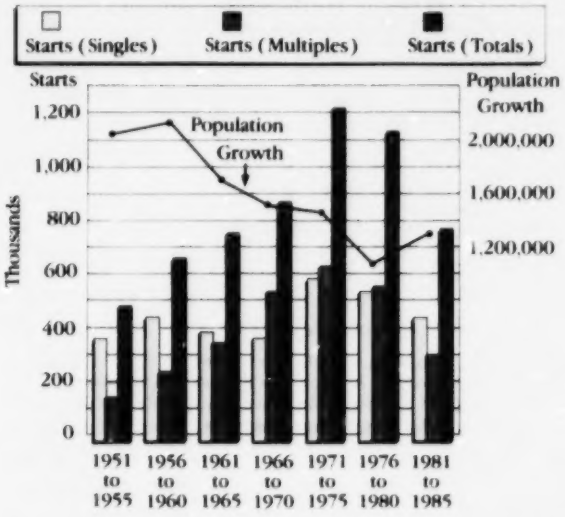
Figure 2 **Population by Place of Residence Canada, 1941-1981**



Source: Censuses of Canada, various years. Includes population in all living arrangements.

The increase in the total population, combined with the aging of our relatively young postwar population and the shift to the larger cities, stimulated production of increasing volumes of new housing. Overall, new housing production grew steadily from the 1940s until the mid-1970s, led by strong expansion of the essentially urban, multiple-family housing forms. See Figure 3. Single-family housing construction varied in importance throughout the 1950s and 1960s, then strengthened in the 1970s to become the dominant form of housing production. Total housing starts peaked during the early 1970s, with production averaging nearly a quarter of a million new housing units per year.

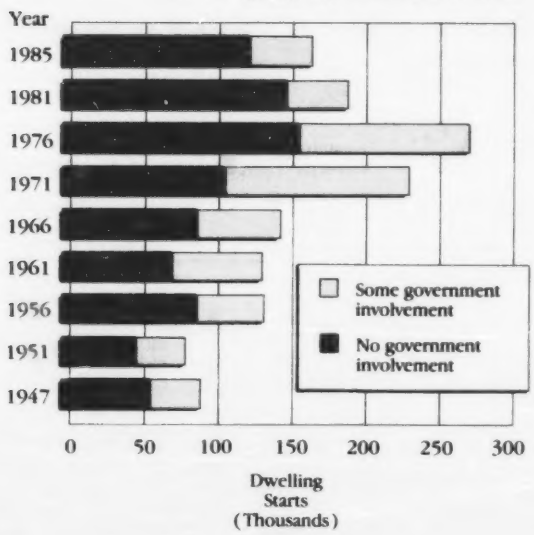
Figure 3 **Housing Starts and Population Growth, Canada, 1951-1985 inclusive**



Source: Canada Mortgage and Housing Corporation, *Canadian Housing Statistics*, Ottawa, various years.

Both the private sector and governments were involved in this expanding housing activity. Governments became increasingly active in housing production through the 1960s and 1970s, to the point where they participated in about 125,000 housing starts during the peak in 1971 (Figure 4). The private sector grew gradually to a production level of 100,000 unsupported starts per year by 1971, and it has maintained production close to 150,000 units per year since the mid-1970s. The various governments began cutting back on their participation in housing in the later 1970s, and their share of total starts has declined sharply from about 45 per cent to about 15 per cent.

Figure 4 **Government Involvement in Housing Supply, Canada, 1947-1985**



Notes: Government involvement includes government-owned housing, units constructed under direct loans to builders and housing organizations, and dwellings financed through low-to-moderate income support programs.

Source: Canada Mortgage and Housing Corporation, *Canadian Housing Statistics, 1947-1985*, Ottawa.

The two sections which follow explore the evolution of housing in Canada and the industry which produced it. They address a range of important questions covering the entire sweep of events since 1946 and the lessons we have learned. The discussion identifies areas in which Canada's performance has been successful and those in which we continue to face challenges. It will allow us to draw upon this vast experience in developing the housing agenda for the foreseeable future.

HOUSING PROGRESS IN CANADA SINCE 1945

Canadians entered the postwar period with a mixture of optimism and uneasiness about the future. On the one hand there was a widespread sense that their lives and their housing were about to become much better. On the other hand, there was a realization that the deprivations of the Great Depression of the 1930s, combined with the exigencies of wartime production, had left them rather the worse for wear. For one, the housing stock had been undermaintained and was getting older. Some saw a return to the economic doldrums of the 1930s once war production waned. Others saw ill omens in the decline in Canadian fertility in the first half of the twentieth century, a continuation of which might have meant slow economic growth and little incentive for the production of additional new housing.

However, the fears proved to be largely unfounded. After 1945, the economy grew rapidly. At least up until the early 1960s, higher fertility and a tremendous flow of immigrants helped to spur the economy in general and the production of housing in particular. In addition, there was a substantial upgrading of the existing housing stock. In many important ways, the housing conditions of the average Canadian improved substantially. It is this improvement that is hereinafter described as housing progress.

WHERE WERE WE IN 1945?

To get a sense of how much housing conditions have changed, let us begin with a thumbnail sketch of the overall size and nature of the housing stock as seen from the 1941 Census. See Table 1. In 1941, there were 11.5 million Canadians, just over half of whom lived in urban areas.[1] The vast majority lived in about 2.6 million "private" dwellings[2] at an average of about 4.5 persons per dwelling.[3] About 40 per cent of the private dwellings in urban areas were owner-occupied; in rural areas, the figure was closer to 75 per cent.[4] Just over 70 per cent of all dwellings in Canada were single-detached structures; in urban areas, the figure was 50 per cent.[5] The average size of a private dwelling was 5.3 rooms.[6]

Table 1 **Some Comparative Data on Housing Progress, Canada, 1941 and 1981**

	Units	1941	1981
Total population	(000s)	11,490	24,203
In urban areas	(000s)	5,852	18,009
In collective dwellings	(000s)	368	406
Occupied private dwellings	(000s)	2,573	8,281
Rooms per dwelling	(rooms)	5.3	5.7
Persons per dwelling	(persons)	4.5	2.9
Persons per room	(persons)	0.8	0.5
Owner-occupied dwellings	(%)	57	62
In urban areas	(%)	40	56
Single detached dwellings	(%)	71	57
In urban areas	(%)	49	50
Dwellings			
In need of major repair	(%)	27	7
Using stove or space heater	(%)	61	7
Using coal, coke, or wood fuel	(%)	93	4
With refrigerator	(%)	21	98*
With piped running water	(%)	61	96*
With inside flush toilet	(%)	56	94*
With installed bath or shower	(%)	45	91*

Sources: 1941 and 1981 Censuses of Canada. Asterisked data are from the 1971 Census. Total population includes only persons living in private dwellings or collective dwellings.

Such aggregate figures do not indicate much about the condition or quality of this housing stock. An examination of the latter reveals significant regional differences, with urban dwellings, and those located in more prosperous Ontario, Québec, and British Columbia being generally larger or better equipped than those in the rest of Canada. For example, in 1941, census enumerators found that 27 per cent of all private dwellings were in need of major repair, the incidence being higher in rural areas and in the Prairie provinces and lower in British Columbia and Ontario.[7] About 60 per cent of all dwellings relied on inadequate or inefficient forms of heating (stoves or space heaters) and 93 per cent used coal, coke, or wood as their heating fuel.[8] Although almost all urban dwellings were electrified, only 20 per cent of rural dwellings were so equipped (many with only a 25 Hz supply). Only about 25 per cent of all private dwellings had a mechanical refrigerator, most of the rest relying on iceboxes. Only about 60 per cent of dwellings had piped running water,[9] 56 per cent had an inside flush toilet, and 45 per cent had a private installed bath or shower.[10] It has also been estimated that the average age of a private dwelling in Canada in 1941 was about thirty years.[11]

A substantial number of Canadian households,[12] especially those with low incomes, were living in housing that was inadequate given their needs or too expensive given their incomes.[13] In its 1944 *Final Report*, the Advisory Committee on Reconstruction (Subcommittee on Housing and Community Planning) estimated that 40 per cent of households with annual incomes under $500 in 1941 were living in "overcrowded" conditions; that is, housed at more than one person per room. Among households with incomes of $2,000 or more, the figure was just 12 per cent. The report estimated a need for 194,000 housing units (or about a 7.5 per cent increase in Canadian housing stock) to eliminate overcrowding.

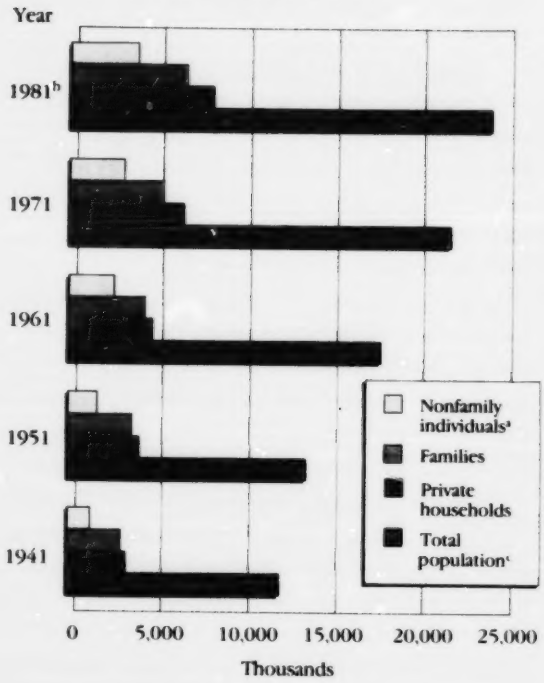
In summary, Canada began the postwar period with a large stock of aging and substandard housing, communities that lacked appropriate municipal services, rural areas that lacked electric power, and with a substantial number of households living in crowded conditions or paying shelter costs they could ill afford.

Housing in Canada has traditionally been produced largely within the private sector, albeit with public regulation, implicit and explicit subsidization and some direct government involvement. Prior to 1945, involvement by the public sector was relatively limited. It is hard to generalize because Canada has

two constitutionally recognized levels of government (federal and provincial) and a third level (local government) that is empowered by the provinces. Consequently the form and nature of public-sector involvement varies considerably from one local jurisdiction to the next.

Nonetheless, by 1945, the principal elements of federal postwar housing policy had already been tried out in some sense. The first modern instance of a housing program was in 1918 when $25 million was made available for the construction of new owner-occupied dwellings. The program provided for low-interest mortgage loans with a low down-payment and a long amortization period. The targets of this policy were young returning soldiers of modest income who needed help to purchase a small home.[14] The next federal initiative was the Dominion Housing Act of 1935. In an effort to speed recovery from the Great Depression, this Act provided for cheap and flexible first mortgage loans to buyers of new moderately priced dwellings.[15] The target group was young homebuyers with modest incomes. The 1938 National Housing Act (NHA) was also the first to provide for financing of rental accommodation.[16] In 1942, the Veterans' Land Act was enacted with the same purposes as the 1918 postwar "soldier resettlement" program.[17] In addition, during World War II, the federal government introduced a number of programs designed to accommodate war production workers in low-cost rental units.[18] In these respects at least, there had been a focus on assistance to both the new homebuyers of modest income and the low-income renter. These were to be two of the key target groups of postwar housing policy.

Figure 1 **Population, Households, Families and Nonfamily Individuals Canada, 1941-1981**



Notes: (a) Nonfamily category includes individuals whose family status could not be ascertained.
(b) 1981 Census counts exclude families in collective dwellings. Families in collective dwellings are included in earlier counts.
(c) Total population figures refer to usual residents only.

Source: Censuses of Canada, various years.

HOW FAR HAVE WE COME SINCE 1945?

What has happened in Canadian housing since 1945 is quite remarkable. To get a clearer picture, 1941 Census data may be compared with the results for 1981.[19]

One remarkable change has been in the size and composition of Canada's population. Since 1941, our population has doubled. See Figure 1. Sustained by high volumes of immigration, an unprecedented postwar baby boom that lasted into the early 1960s, and substantial improvements in longevity, this growth had several important effects on household formation. In the 1950s, improved longevity and substantial immigration directly spurred the new formation of households. In the 1960s, the children of the baby boom began to reach adulthood and to form their own households. Accompanying this growth was a substantial shift in composition. With the continuing improvements in longevity, there were considerably

more elderly people (especially widows). There were also a lot more younger singles, partly the result of the baby boom, and partly because of a sharply rising incidence of divorce and a downturn (in the 1970s) in the marriage rate. For various reasons, more and more individuals were living outside a family unit.[20] Of course, the number of families also grew rapidly in the 1960s and 1970s, a consequence of the entry of the baby boom generation into adulthood and marriage. A smaller proportion may have chosen to marry, but the absolute numbers were still quite large.

These demographic changes boosted the demand for housing in two important ways. First, in terms of sheer numbers a growing population meant that more housing was required. Second, the changing composition of Canada's population contributed still more to the demand for housing. Those young singles and families, the divorced, and the widowed all contributed to rapid household formation. While Canada's population doubled, the number of households more than tripled, from 2.6 million in 1941 to 8.3 million in 1981.

Accompanying this remarkable growth were some important shifts. One shift was geographic. By 1981, Canada's population had become preponderantly urban. Also important was the migration of population out of the Atlantic and Prairie provinces and into Central Canada and British Columbia, flows that would have created additional housing demands nationally even in the absence of overall population growth.[21]

In addition to this growth, the housing stock changed in other important ways.[22] The net result of population increasing more slowly than the number of private dwellings was that average household size had declined to 2.9 persons by 1981.[23] By 1981, fully 56 per cent of urban dwellings were owner-occupied; in rural areas, the figure had risen to 84 per cent. Single-detached dwellings fell to just 57 per cent of all dwellings in Canada although the corresponding figure for urban areas remained at 50 per cent. The average size of a dwelling had increased modestly to 5.7 rooms.

At the same time, there were important changes in the quality of housing. In 1981, just 7 per cent of all private dwellings were in need of major repair.[24] Under 7 per cent now relied on stoves or space heaters and under 5 per cent used coal, coke, or wood as their heating fuel. By 1971, rural electrification and a 60 Hz electrical supply were almost universal, as were refrigerators, piped running water, inside flush toilets, and private installed baths or showers, or both. Although data on average age of dwelling are no longer available, the stock was overall quite young. Almost 33 per cent of the stock in 1981 had been built in the previous decade, up from 29 per cent in 1971.

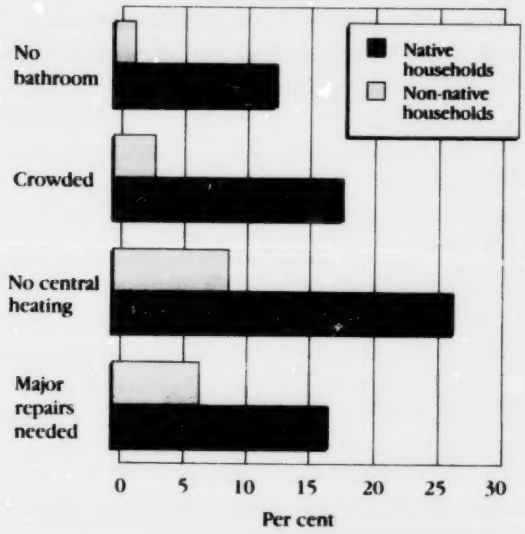
The average Canadian certainly became much better housed, and not only in terms of the above indicators. In both new housing construction and the renovation of existing dwellings, there was widespread adoption of improved, long-lasting building materials such as plywood sheathing, prefabricated roof trusses, steel girders, and prefabricated units such as window and kitchen components. There were also safety improvements such as the emergence of fire-resistant materials and grounded wiring systems, and important improvements in energy conservation such as new insulation materials and double or triple-glazed insulated windows. Design measures to protect buildings against localized accumulations of moisture were coming into widespread use.

At the same time, there were substantial reductions in the incidence of crowding. For example, by 1981, the average number of persons per room was only 0.5, and fewer than 3 per cent of all private dwellings contained more than one person per room.

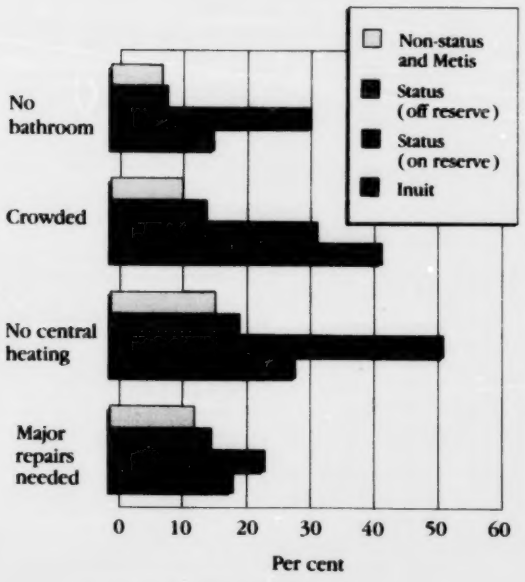
Against this backdrop of overall improvement, it is important to keep in mind that not all Canadians have become equally well housed. Important regional differences remain. Substandard housing is still generally more common in rural areas and the less affluent Atlantic provinces, and to a lesser extent in the Prairies. Canada's native peoples, whether Inuit, Indian, or Metis, also tend to be housed less adequately. See Figures 2 and 3.

Since 1945, the targets of housing policy have shifted somewhat. In broad terms, the objectives remained the same: to ensure that all Canadians were decently housed and that this housing was both affordable and available. Through the early postwar years,

Figure 2 **Housing Conditions of Native and Non-Native Private Households Canada, 1981**



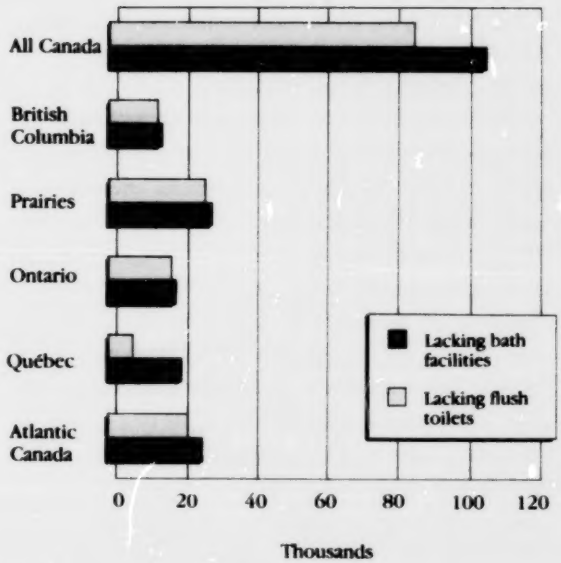
(A) Native and Non-Native Households

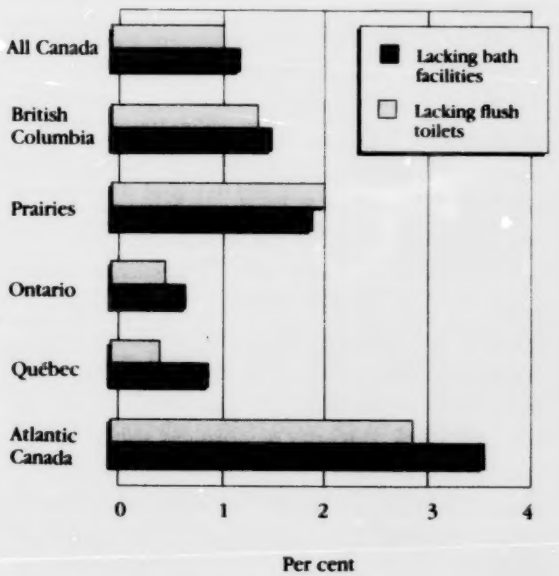


(B) Native Households by Type

Source: Statistics Canada (1984). *Canada's Native People.* Table 7.

Figure 3 **Households Lacking Access to Selected Plumbing Facilities Canada and Regions, 1983**





Source: Statistics Canada (1984). *Household Facilities by Income and Other Characteristics, 1983.*

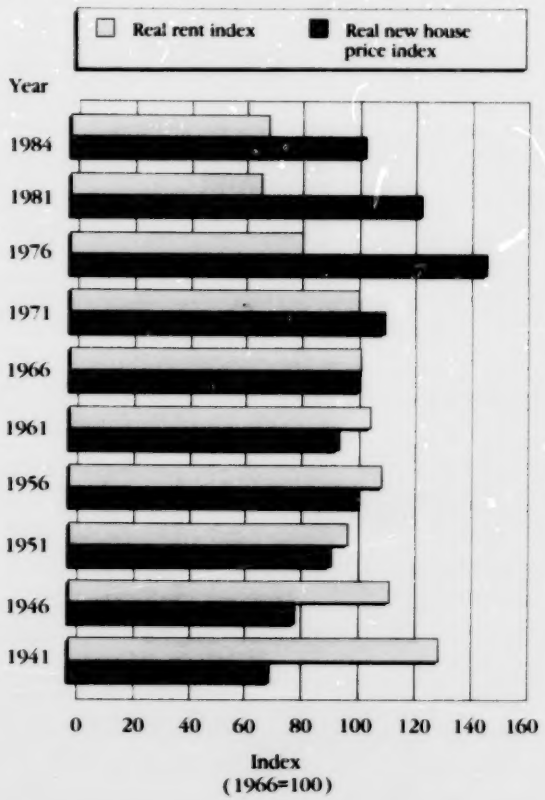
there was a continued focus on improving the access of moderate-income families to owner-occupied housing. There was also a major drive to provide better rental housing for low-income families. Later, housing initiatives were directed to elderly people, students, natives, and disabled people.

Over the years, households with affordability problems have remained a primary target of housing policy at both the federal and provincial levels of government. However, it has proven difficult to specify the target. In the case of homeowners, the value of housing as an asset good (that is, taking into account capital gains and imputed rents) makes it difficult to measure only the cost of the shelter component. Among both renters and owners, it is difficult to separate temporal changes in housing costs into quality and price components. There is evidence of a growing divergence between the high costs of owning and the decline in real costs of renting. See Figure 4. However, it is difficult to know whether this means that housing became more affordable for renters. Certainly, there is little evidence that the affordability problems of unassisted renters declined substantially in postwar Canada.

Postwar changes in house prices are also noteworthy here. In large part, they mirrored the buoyancy of the Canadian economy. In the early postwar years, house prices escalated quickly as the economy expanded. However, by about 1957, the economic growth had declined, and house prices slumped. From the late 1950s through the early 1960s, Canada's economy was in a recession and the price of housing declined relative to other consumer goods. Prices picked up again in the economic resurgence of the mid-1960s and increased at a frantic pace in the 1970s before tailing off again in the recession of the early 1980s. The latter increase was also in part demographically driven as the postwar baby boom reached homebuying age. It is interesting that rents did not show the same cyclical pattern. See Figure 4.

Most of the above changes in the housing condition of Canadians were largely accommodated within private markets for both rental and owner-occupied housing. In that sense, we can think of them as outcomes of shifts in the demand for, and supply of, housing. What caused these shifts? How important were these causal factors?

Figure 4 **Real Housing Prices and Rents Canada, 1941-1984**

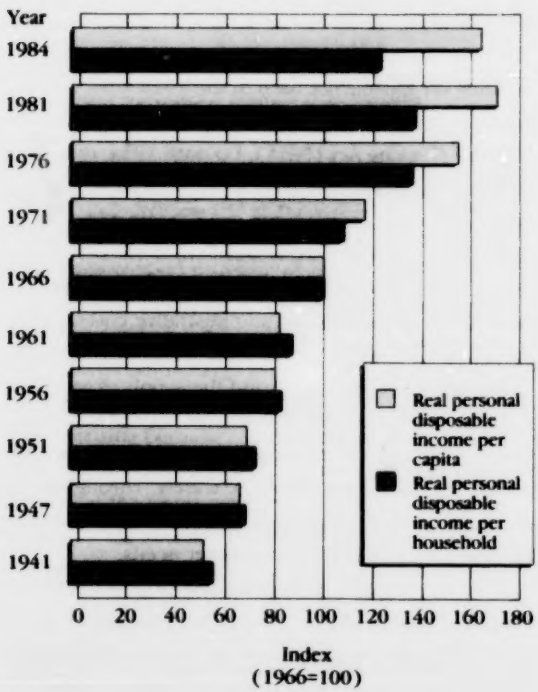


Source: Real rent is the rent component of the Consumer Price Index divided by the consumer expenditure deflator.

Real new house price index is the nominal house price index divided by the consumer expenditure deflator. Nominal new house price index calculated from Statistics Canada's quarterly New House Price Index, linked at 1969 to the average cost per square foot of NHA singles and at 1952 to the Residential Building Construction Input Index.

By looking at population growth, we have already begun to consider some of the demand factors. It has been estimated that about two-thirds of postwar household formation was directly attributable to changes in the size and demographic mix of Canada's population.[25] However, the remaining one-third resulted from a greater propensity, especially among nonfamily individuals, to live alone. In part, this was attributable to rising incomes, abetted by moderate increases in the price of housing, at least for renters, relative to other consumer prices. See Figure 5. Canadians used part of their growing prosperity to purchase control of their living arrangements. Typically, this meant separate accommodation. See Table 2. The income elasticity of household formation in Canada has been large enough, at the real income growth

Figure 5 **Growth in Real Income Canada, 1941-1984**



Source: 1951 Census and National Accounts data (1941 figures), Department of Finance, *Economic Review*, April 1985, Reference Table 13 (1947-84 figures).

Table 2 **Indicators of Undoubling, Canada, 1941-81**

	1941 (%)	1951 (%)	1961 (%)	1971 (%)	1981 (%)
Families:					
—maintaining dwelling[a]	92	90	94	97	97
—living alone[b]	—	—	79	84	88
Individuals:					
—in families	86	87	88	87	85
—nonfamily[c]	14	13	12	13	15
—nonfamily living alone	—	14	20	30	47
Private households:					
—with lodgers[d]	—	—	19	16	12

[a]In 1941, where a household was a "housekeeping" unit, there could be two or more households in a dwelling. Later censuses assign exactly one household to a dwelling. In comparison, the number of families maintaining a dwelling was thus overstated in 1941.

[b]Dash (—) indicates data are unavailable.

[c]Including persons living in collective dwellings, regardless of family status.

[d]Includes any household which does not consist of a person living alone, or a family living alone.

Sources: Censuses of Canada, various years.

rates experienced since 1945, to account for about one-ninth to one-sixth of postwar household formation.[26]

Some major public policies had important impacts on postwar housing, even though they were not explicitly linked to housing policy. These include various new income-maintenance programs for the elderly,[27] the unemployed,[28] and low-income families and individuals, and a variety of new subsidy/insurance programs for basic goods such as education and medical care. These programs made it possible for low-income individuals and families to devote more income to housing consumption. Income maintenance programs for the elderly may have also lessened the traditional need for reliance on the owner-occupied dwelling as a nest egg for retirement.

In addition to this kind of "pull," postwar social policy initiatives also included at least one "push" in the form of efforts by various levels of governments to reduce the size of Canada's institutionalized population. Many institutional facilities, including nursing

homes, chronic care facilities, hospitals, psychiatric care facilities, jails and military camps, had been permitted to languish before and during World War II. Although the total population in all collective dwellings[29] was under 400,000, attempts to upgrade this housing stock in the 1950s and 1960s proved costly, and raised public debate about appropriate policy directions. Some argued that inmates could be less expensively or better housed in the private sector. Others argued that the special services and conditions found in institutionalized housing could not be effectively provided outside. In many cases, the advocates of private-sector housing won out. The effect was to push some nonfamily individuals, including some who were marginal in terms of income or wage-earning potential, into the private housing market.

Also important has been the relative treatment of owners and renters under Canadian income tax legislation. Governments in Canada have never taxed the capital gains on sales of principal residences. Since 1972, capital gains on other broad classes of assets have been taxable, which increased the attractiveness of owning a home relative to owning these other taxable assets. However, unlike the United States, Canada does not permit homeowners to deduct mortgage interest or property taxes in calculating taxable income. Also important is that governments have never attempted to tax the imputed return on equity in an owner-occupied dwelling. This further increases the attractiveness of owning over renting.

WHAT HAVE WE TRIED?

Postwar Canadian housing policies fall into two broad categories. One category was concerned with eliminating perceived inefficiencies in the housing market. The private market was seen to be incapable of producing an adequate supply of housing, and policies were implemented to regulate, assist or encourage suppliers to compensate for the inefficiency. The other category of policy was concerned with issues of equity and social justice in housing. For various reasons, it was believed that the private market, even if operating efficiently, was incapable of providing adequate housing at an affordable cost for every Canadian.

POLICIES TO IMPROVE MARKET EFFICIENCY

Federal postwar housing policy has been extensively concerned with the supply of mortgage funding. In early postwar Canada, there were few large lending institutions,[30] no secondary market for mortgages, and no private mortgage insurance companies. It was felt that potential lenders might be discouraged by the riskiness and limited liquidity of mortgages and the difficulty of continually matching quantities of funds needed for lending with those available from borrowing. As a result, lenders were thought to be reluctant to enter the market, and to be overly cautious when they did. This was seen to be injurious both to the production of an adequate amount of housing in particular and to overall economic growth in general.[31] The federal government began the postwar period by building on approaches used in the 1918 Loan Program, the 1935 Dominion Housing Act, and the 1938 National Housing Act (NHA). Up until 1954, this involved making joint loans.[32] Later, joint loans were replaced by a mortgage insurance scheme which made mortgage financing available to borrowers with equity contributions as low as 5 per cent. The insurance also reduced risk and administrative costs for the mortgage lenders.[33] Currently, the federal government is attempting to further expand the supply of mortgage funds by introducing mortgage-backed securities that will help to make mortgages more liquid and will spread the risks of default more widely. Throughout the entire period, mortgages have become more flexible and better tailored to consumer needs.

Although there have been a few large firms, the Canadian homebuilding industry has typically been made up mainly of small firms. At the federal and provincial levels, there have been concerns that these firms are simply too small or too fragmented to encourage the kind of long-term research and development that is needed to spur innovation and new

efficiencies. At the outset of the postwar period, the National Research Council and Canada Mortgage and Housing Corporation (then known as Central Mortgage and Housing Corporation) were mandated to develop appropriate standards for new construction and to explore new technologies and approaches.[34] By the 1970s, the larger provincial housing agencies had also become active in this area.[35]

This raises another concern of postwar housing policy. Housing construction is a complex technology. When consumers purchase housing, whether as owners or renters, they typically cannot be expected to know if it is well built. In a private market, they have to rely, for the most part, on the integrity of the builder or landlord. Postwar housing policy, in part, was an attempt to reduce this uncertainty. The spread of building-code legislation throughout Canada during the 1950s and 1960s helped to ensure to the occupants of new housing that their housing was built to a minimum standard of sound construction. In a similar vein, during the 1970s, the spread of new-home warranty legislation for owners and property maintenance legislation for renters further supported these markets. More generally, one can also cite the spread of regulation at all levels of government in regard to land subdivision, zoning, and development that helps assure occupants or neighbourhoods that certain standards of good planning would be honoured.

Another policy issue concerns the income tax treatment of losses from rental property. Before 1972, a landlord could charge losses in the operation of rental property against other income. This included rental losses arising because of depreciation. After 1972, most landlords could not claim losses against other income if the losses were created by depreciation. Arguably, the Income Tax Act of 1972 affected the housing market by making rental housing less attractive to small investors. In 1974, the federal government tried to compensate for this by introducing the Multiple Unit Rental Building (MURB) scheme. Under this scheme, small landlords could claim depreciation costs even if these created a loss. The program was eventually terminated in the early 1980s.[36]

POLICIES TO PROMOTE EQUITY AND SOCIAL JUSTICE

Canadian postwar housing policy has also been extensively concerned with an equitable allocation of housing. Much of this has been in the form of assistance for low-rental housing for needy Canadians. The 1938 NHA provided for subsidized joint mortgage loans for the construction of public housing by local housing agencies. The 1944 NHA amendments introduced the possibility of "limited dividend" housing,[37] urban renewal programs, and rents geared to income. However, public housing did not become a strong component of housing production until the 1949 amendment that enabled the federal-provincial Public Housing Program. In 1969, rent supplements were introduced to subsidize low-income households living in private rental accommodation. Further subsidies to encourage new construction of private rental accommodation were offered by both federal and provincial governments in the 1970s and 1980s.

In addition, there have been numerous policies that provided subsidies to low-income homeowners. At the federal level, these included a program started in 1973 that provided small forgivable loans for upgrading substandard housing.[38] At the provincial level, in addition to explicit housing programs, various subsidies have been introduced which have also had an effect on housing markets. These include tax deferrals, abatements, and credits for the elderly. Furthermore, the federal government has experimented with encouraging modest-income families to switch from renting to owning.[39]

In the 1970s, there was a rising concern with consumer sovereignty and protection. In some respects, the concern was with improving the efficiency of the market by reducing imperfect information. In other respects, however, the concern was ultimately with some notion of fairness or social justice. In the housing area, this was perhaps best seen in the emergence of security of tenure legislation at the provincial level. This legislation restricted the rights of landlords to specify onerous lease provisions, to evict tenants, and (in some provinces) to determine rents. The new home warranty legislation introduced at

about the same time is in a similar vein. Still another example might be the more recent federal mortgage rate insurance plan (through which the borrower can purchase protection against large increases in interest rates upon mortgage renewal).[40]

A solid niche for nonprofit and cooperative housing has emerged from a process of experimentation and steady growth through the 1960s and 1970s. Traditionally, the two principal components of the rental stock have been public rental housing and private-market (owned or rented) housing. Third-sector housing (nonprofits and co-ops) had some comparative advantages. In its early stages it was occasionally less expensive to produce, owing to sweat equity and advantageous site-purchase arrangements. Neither of these cost-saving devices have persisted, as members have ceased contributing sweat equity, and later program arrangements have eliminated indirect subsidies through the land cost. A continuing advantage is the fact that third-sector housing is more carefully designed to meet the needs of its clientele. In general, it can provide tenants with better security of tenure than is found elsewhere in the private rental stock. Finally, such housing can provide for more local community involvement in its financing, design, construction and operation. Although the rate of production in this sector declined during the 1980s, private rental housing declined even faster, and, as a result, the third sector has accounted for a growing proportion of the rental stock.

WHAT HAVE WE LEARNED?

This is a difficult question to answer. Perhaps the easiest approach is to view it from the perspective of those who have learned: housing suppliers (the industry), housing demanders (the consumers), and governments.

WHAT HAS THE INDUSTRY LEARNED?

To this point at least, Canadian builders have shown themselves willing to learn new housing construction technology. The site-built, wood-frame platform construction that characterized much low-rise construction has improved steadily since 1945, partly as a result of building research funded by CMHC and other public agencies. This construction method has proved more acceptable than either modular building systems or manufactured homes. Although the amount of manufactured components used in site-built housing has risen (finished kitchen cabinets, window and door assemblies, for example), technical change in the industry has been quite gradual. The story is almost the same for developers of high-rise accommodation. The period saw some major technological breakthroughs — such as the introduction of the flying form —but radical shifts such as modular building systems failed to take hold. Further, with greater standardization, the development of specialized subcontracting reduced the need for developers to keep abreast of all technological changes.

The industry also learned (or re-learned) about risk exposure and containment. Builders, developers, or landlords take risks in a number of ways. In speculative construction (that is, constructing housing before a purchaser has been found), builders risk taking a long time to find a buyer. In mortgage financing, landlords take a risk in that they effectively borrow "long" (through mortgages) in order to lend "short" (in rental leases). A similar risk is inherent in land banking where developers realize tremendous leverage when land prices rise faster than financial holding costs, but where losses also can be multiplied. From relatively cautious practices in the late 1940s,

there was an increasing level of risk-taking in the buoyant markets of the 1960s and 1970s. Developers subdivided tracts of land into building lots[41] without having contracts to sell the lots, and builders constructed houses without having buyers for them. In the early 1980s, risk containment became a keyword under the sobering influence of recession. Few builders constructed housing unless buyers had signed contracts for them, based upon the building plans. With the growth in size, larger development firms have also learned to spread risks by diversifying into other forms of real estate development, other regions of the country, or other countries.

The housing industry has also learned something about the adaptability of the existing stock. The larger old brick or stone buildings have proven most malleable. Particularly in older inner city areas, these structures have undergone a number of use changes. In many cases, wartime or early postwar conversions of larger homes into smaller apartments are now giving way to deconversion back to single-family residences.

Rapidly changing requirements for our housing stock have illustrated the value of housing forms that permit adaptation to different uses. Generally, it is prudent to construct housing that is large enough to be flexible in use and that is built to be long-lasting. However, increased flexibility has costs. The adaptable unit comprises rooms larger than are required for their current use, and this extra construction cost must be paid for. While this added cost may present a marketing obstacle for new housing, the resale market values the added area as a further amenity.

WHAT HAVE CONSUMERS LEARNED?

The postwar period saw rapid growth and, at times, high rates of inflation. In these conditions, Canadians learned about the value of housing as an investment which provides a hedge against the rising costs of shelter, and as a means of maintaining or improving their standard of living.

In recent times, they also learned that housing values can fall during economic downturns, with devastating effects for those who lost their jobs or otherwise became unable to maintain their mortgage payments. The number of households facing such difficulties, and the severity of their problems, were worsened by the shorter period over which mortgage rates generally remained fixed. Shorter mortgage terms meant more people were in the market for mortgages, even in periods of high interest rates when unwilling borrowers were forced to re-finance their houses.

Another lesson learned by postwar consumers dealt with the uses and limitations of land-use planning. In Canada, planning as it is known today was almost nonexistent before 1945. Building code and land subdivision regulations were found in only a few locales. Land-use planning and development controls became widespread only in the 1950s and 1960s. They were implemented to serve several objectives, among them consumer protection, social mix, improved efficiency, reduced environmental impact, and preservation of farmland. While regulation has undoubtedly solved some problems, it has also created others. Early postwar suburbs tended to have three main characteristics: they were socially homogeneous, they had little physical infrastructure and few services, and they were constructed at low densities. Later suburbs tended to be designed for a mix of incomes, with a much higher level of infrastructure, and at high densities. There have been complaints about the uniformity (or lack of diversity) of suburban development, high densities, and enforced mixing. The new uneasiness about postwar land-use planning reflects a lesson learned by consumers; the complexity of urban life and human aspirations makes it difficult to plan and regulate a satisfying urban environment.

Consumers have also learned of the effects of rapid growth on neighbourhoods and zoning plans. In times of slow growth there was a sense that zoning restrictions were written in stone. People bought into neighbourhoods in the expectation that adjoining land uses were satisfying everyone and were fixed. When urban growth accelerated, however, mature neighbourhoods became valuable locations for other pur-

poses, such as higher-density housing, commercial developments, or even transportation corridors. Residents then learned the limitations of plans and zoning bylaws in the face of economic growth.

Out of that experience, consumers learned another lesson. Beginning with the slum clearance and urban expressway projects of the 1950s and 1960s, consumers in the large metropolitan areas began banding together to protect their neighbourhoods. With the spread of socially mixed housing, and increasing traffic densities, the phenomenon soon also engulfed the suburbs. Residents' associations became a significant new political force. The lesson learned was the importance of the neighbourhood in determining the quality of life possible in a particular dwelling, and the feasibility of political action to preserve it.

Finally, there is a lesson that is still very much in the making. It has to do with the cost of regulation. Since 1945, the regulation of housing has increased dramatically. Some, perhaps all, of this regulation has been beneficial. However, in the last decade, there has come to be a growing awareness that regulation is not costless. In the case of housing regulation, the available evidence is far from complete. However, there is a growing awareness that the costs of regulation are potentially high and that every regulation should be reviewed to ensure that its benefit exceeds its cost. For consumers, one implication is that inefficient regulation may be pushing up the cost of housing, or reducing housing affordability, or both.

WHAT HAVE GOVERNMENTS LEARNED?

All levels of government in postwar Canada made substantial new attempts to influence, or redirect, the way in which housing was produced, demanded, or allocated. In a sense, governments may have learned the most from the postwar experience, if only because they had the most to learn. After all, consumers and private producers of housing had been in the market for a long time; governments were the newcomers.

One principal lesson learned by governments is that the appropriate policy solution is partly determined by conditions specific to the locale. Because Canada is large and geographically diverse, global solutions are rarely so flexible as to work in each and every local situation. At the broadest scale, this has meant that comprehensive national strategies must be carefully scrutinized. At a more localized level, it means that within provinces or regions there is a need to gear policies and programs to the specific local housing conditions. There have been some attempts to redress this problem — by creating policies specific to local areas or problem situations, for example. However, it is the source of a continuing dilemma, as this can be both administratively inefficient and geographically inequitable. It is of interest to note, for example, the devolution of ownership of public rental housing over time, from the federal government's Wartime Housing Limited, through the provincial housing corporations, to municipal agencies. However, what might be best for the administration of public rental housing may not be best for other facets of housing policy. There is a need to consider carefully how a policy might best be implemented, given Canada's various levels of government.

A second lesson learned is that the cost of "solving" housing problems can be very high. In part, this high cost is related to patterns of subsidies between and within households. For example, in some cases, the separate accommodation of a low-income individual (such as a single parent or elderly person) is subsidized by a family living elsewhere. If this individual then moves into a publicly subsidized unit, the subsidy paid by a government typically supplants the amount formerly paid by the family. A similar substitution occurs when an elderly person moves from a child's family home (where the typically low nominal rent reflects an implicit subsidy) to a subsidized senior citizen apartment. Part of the high cost of housing programs to governments is a result of such subsidy substitution.

Another lesson learned concerns the definition of housing adequacy. Governments at all levels have wrestled with this. The fundamental questions remain. How does one define a set of minimum standards for housing? How and why should these standards differ

depending on the characteristics of the households? For which potential households are these standards to apply? Who should set the standard? We have learned that these are all ultimately normative questions. The answers depend on one's perceptions of society's goals, and of how society should proceed to address those goals. At the same time, we have also accumulated some evidence to show that the form housing takes — in terms of the physical characteristics of the dwelling, its match with household needs, its affordability, and neighbourhood characteristics including access — are important in some specific ways to social well-being.

Related to this is a lesson learned about the need for social mix. Some of the early experiments in postwar housing (both private and public) were criticized for being too homogeneous or too segregated. Throughout much of Canada, planners have attempted to encourage a greater mix of incomes and age groups at the neighbourhood or community level. In some cases, these efforts at integration have been quite divisive; in others, very expensive. Encouraging social mix is thought to create several benefits to Canadian society, such as improved social justice, equality of opportunity, compassion, diversity, and a sense of community. However, there is surprisingly little evidence of the extent to which current social-mix policies actually result in such benefits. At the same time, these policies can and do clash with the concerns of local residents over such things as perceived loss of property values or personal safety. We have learned that it is important to find answers to the following questions. What are the social costs of not promoting social-mix policies? How large are these? What alternative means are available to promote social mix, and how effective are these?

Related to this is a lesson learned about housing policy within the broader context of community development. The problem of social mix appears to have been increasing in recent decades. Whether this is because of a shift in society's goals or an increasing awareness of the impact of poor mixing is not clear. What is evident is that housing policy must not be viewed simply in terms of delivering numbers of housing units. Rather, it must also be related to the placement of those units, physically and socially, within the community.

Social mix is considered to be important. It is also elusive. In recent years, there has been a renewed policy emphasis on "targetting" which has been taken to mean that subsidies should be restricted to the needy. While laudable in terms of program efficiency — after all, no one wants to subsidize people who do not need subsidies — social mix may indirectly become a casualty. If mix is to be encouraged, but non-needy households resist intrusion into their neighbourhood, ther are only two policy options. One is to force the integration by direct action (at potentially great expense) or by legislation (at potentially great political cost). The other is to provide incentives for the non-needy to accept the integration.

There is a related lesson that governments have slowly been learning in the past few years. This relates to the de-institutionalization process. New kinds of social policy responsibilities have come with the relative reduction in Canada's institutionalized population. The physically and mentally handicapped and the aged, for example, need parallel support services if they are to make their way as normal members of a community. In general, and particularly in smaller centres, the services they would have received in an institutional setting are not available in the community. Some of these services are best provided centrally, requiring that clients be located nearby. Other services are best provided in the home. In other cases, clients are best settled in special housing or group homes. The integration of these people into the community is one important aspect of social mix.

Another lesson that is still being learned concerns the impact of postwar income-maintenance schemes. The housing affordability problem arises because households do not have sufficient income to afford the basic requirements of life. Until the 1960s, per capita incomes rose sharply through the postwar period, especially in comparison to shelter costs. Also, there were important shifts in income-maintenance schemes that helped to assure a household a steady disposable income over its lifetime. In

addition, the entry of married women into the labour force increased family incomes. The result was that, although averages can mask important changes for particular kinds of households, relatively more households could expect to find housing affordable throughout their lifespan. For this latter group, housing policies aimed at improved affordability became less urgent.

The curious twist is that postwar prosperity created a new class of poor. By providing subsidized housing, medicare, and a variety of other subsidized goods, governments encouraged the formation of separate households among groups (such as the elderly and lone-parent families) who had not previously been prone to living alone. These new households typically had low incomes relative to shelter costs, and added to the numbers experiencing affordability problems.

This insight points to broader complications in finding the appropriate role for public policy in the field of housing. In the early postwar period, governments saw their role as providing remedies for market shortcomings, and helping those who were left behind by the market. In effect, government policy worked at the margins of the market, but did not directly compete with it. In the ensuing decades, a more activist role emerged in which governments began to interact more extensively with the private market. Senior citizen and low-income family rental housing, for example, competes with some private stock. At first, the competition was because the government housing was far better built than private housing. Later, as the worst part of the private stock was culled or withdrawn, and the extent of subsidization declined, the differences between the two stocks became blurred. In some cases, public housing tenants have been known to pay a premium to leave subsidized housing and obtain private-sector accommodation of similar quality. One lesson learned is that governments will increasingly have to decide just why, where, and how they will choose to create housing to complement the private sector.

Finally, a lesson has been learned about uncertainty and its implications for housing policy. We may perceive a problem — even its solution — but be unable to do anything about it. Sometimes, this is because of a misperception of the problem. Sometimes, the policies we use may not be sufficient for the job. Sometimes, there may be an interaction between the private market and public policy that prevents the "solution" from working. We set out, for example, to house elderly households better, only to find out that the number of such households increases all the more rapidly as a consequence. If there is one overall lesson, it is that policymakers should have a clear understanding of what they hope to achieve, of the feasibility of achieving it, and of the market conditions within which the policy will operate.

THE RESIDENTIAL CONSTRUCTION INDUSTRY: PERSPECTIVE AND PROSPECTIVE

The volume of residential construction activity in Canada expanded rapidly during the three decades following the Second World War to a peak in 1976. Not only was the physical shortage of housing eliminated within a few years but the supply of new housing also expanded rapidly in response to demographic pressures and rising affluence. Sharp shifts occurred in the mix of new housing built over this period — from predominantly single-detached dwellings to apartments and back to single-detached houses. Because of the aging of the postwar baby boom generation, the lower fertility rates of the past two decades and lower real-income growth, Canada no longer has a requirement for ever-increasing numbers of new housing units. Instead, the focus is shifting to the maintenance and improvement of the existing housing stock. Since the early 1970s, residential renovation activity has exhibited a profile of rapid growth similar to that which characterized new residential construction in the first three decades after World War II. The shift away from new to renovation spending is expected to continue for the foreseeable future.

How was Canada able to produce this impressive number of new housing units over a forty-year period? What are the characteristics of the Canadian residential construction industry? How has it changed in response to changing demands such as the trend toward renovation? What role has residential construction played as an agent of economic growth? What have we learned about the housing industry? Are there lessons in the Canadian experience which other countries may find useful?

WHAT ARE THE CHARACTERISTICS OF THE CANADIAN RESIDENTIAL CONSTRUCTION INDUSTRY?

THE STRUCTURE OF THE INDUSTRY

In Canada most new housing is constructed by private business firms. These firms are much more than general contractors coordinating the activities of the various specialized trades involved with the construction of homes. In effect, they provide a fully finished product to the ultimate homebuyer or investor in rental housing. They typically buy the land, design and then build the housing structure, market the homes to final purchasers, and often arrange for long-term mortgage financing for their clients. Even when the new housing is initiated by one of the three levels of government or by the non-profit sector, the private sector usually builds the actual housing.

The builder of single-detached houses has been and continues to be the mainstay of the housing industry in Canada. This type of housing accounts for 60 per cent of all housing currently built in Canada. Firms producing mainly single-family houses may also build other types of low-rise, predominantly wood-frame, two-family and row dwellings. These other low-rise forms of housing make up a small but still significant share of new housing production. An estimated 10 per cent of all new single-detached housing is also produced outside the formal housing industry either by people building their own houses themselves or by those who act as their own general contractors. This housing is largely built in rural areas. Not surprisingly, the share of self-built housing was much larger in the past when Canada still had a large rural population.

The typical homebuilding firm in Canada is small, building fewer than ten houses per year. Even the largest firms, which may build up to 2,000 housing units per year, are small in scale compared to the average firm in such other goods-producing industries as automobile or consumer appliance manufacturing. Few homebuilders operate in more than one market area and those that do so operate only in selected markets. There are no national homebuilding firms active in all major market from coast to coast.

While the homebuilding industry does not have giants comparable in size with large industrial firms, there nonetheless are significant size differences among homebuilders. The vast majority of the almost 9,000 firms building single-detached houses in 1983 had annual total revenues of less than $500,000. See Table 1.

Table 1. **The New Single-Family Homebuilding Industry: Number of Firms and Revenue by Size Canada, 1983**

Value of Output	Number of Firms	%	Total Revenue $millions	%
$0—499,999	7,449	85	1,005	27
$500,000—999,999	680	8	467	12
$1,000,000—9,999,999	505	8	1,210	32
$10,000,000+	44	1	1,098	29
	8,678	100	3,780	100

These are mostly one-person or two-person firms building two or three houses at a time and fewer than ten on an annual basis. In general, they build a fairly standard product, although many would undertake custom building to specific designs if required. They have low overhead, often operating from an office in the owner's home or with part-time office staff. Some have a construction foreman or labourer on staff. While large in terms of numbers, these builders account for fewer than 25 per cent of the single-detached houses constructed in Canada. There is a high rate of entrance and exit among these firms owing to their relative lack of business experience, lack of management skills and weak pricing practices. Few small firms remain in the business for an extended period. Fewer yet grow into larger firms. Nonetheless, they provide their owners with considerable scope for their entrepreneurial energies and serve many market niches where larger firms choose not to operate.

Medium-sized firms producing between ten to fifty homes per year tend to run more businesslike operations (the more so the larger the firm). They have larger staffs (a construction supervisor, a sales person, and a bookkeeper, for example). However, in many of these firms the owner remains actively involved in all aspects of the operation.

A large homebuilder in Canada is generally one building at least 100 homes per year. The average large builder constructs about 200 houses per year; only a handful of firms build as many as 1,000 to 2,000 units. There are relatively few large homebuilding firms across the country — less than 75 in total in 1985. Yet they account for nearly 30 per cent of the new single-detached houses built by the homebuilding industry. These firms typically have a professional management, including a core staff with construction management, accounting, financial and marketing skills.

The importance of large builders in the homebuilding industry has fluctuated according to underlying market conditions. In periods of buoyant demand, such as in the first decade after the end of World War II, a number of quite large firms emerged which built a more or less standard house aimed at first-time buyers. They benefited from economies of scale. More recently, the number of large builders diminished during the 1981-1982 recession, when the level of overall production dropped by up to 50 per cent compared with the mid-1970s.

The housing industry is, of course, much broader in scope than just the single-detached house builder. The other main participants are land developers, apartment developers and renovators.

In the early postwar period an organized residential land development industry did not exist. Many municipalities had an ample supply of building sites which dated back to the boom days prior to the Great Depression of the 1930s.[1] However, as the supply of these sites became depleted when housing production increased, the void was typically filled by private firms entering the field. In many instances, these firms were single-detached builders broadening their business interests. In general, the Canadian residential land development industry is currently comprised of private firms, though there are a few market areas where the municipality acts as the primary developer of land for residential purposes. In all instances, the development of land is subject to local municipal regulation.

Apartment developers have played a significant role in the housing industry, particularly in the 1960s and early 1970s when apartment construction constituted a high proportion of all new housing construction. Many of these firms had also originally been builders of single-detached houses. At the peak of apartment-building activity, a number of larger apartment-development firms specialized only in apartment development. While often overseeing the construction process themselves, many of these firms contract out the general contracting function. They concentrate on site selection; the identification of market opportunities; the design of the buildings, including the specifications; and often the leasing or selling of the completed product.

For much of the postwar period, most apartments built were destined for the rental market. In recent years, there has been growth in the construction of high-density buildings for condominium tenure, which means residents own their apartment dwelling and a share in the common facilities. As with land developers and single-family-home builders, most apartment developers operate in a single or at most a limited number of market areas.

Renovation is currently the growth segment of the housing industry. However, approximately 40 per cent of renovation activity, broadly defined here to include spending on repairs as well as additions and improvements to existing dwellings and the conversion of non-residential buildings to residential use, is undertaken by homeowners themselves. The remainder is done by a variety of firms including specialized firms (painters, plumbers and carpenters, for example), speculative renovators (firms which buy rundown houses, renovate them and then sell them) and firms more comparable to single-detached builders in the new house sector (they function as general contractors for an owner, coordinating the

involvement of a number of different trades). Few large renovation firms have emerged. Those that have are typically specialized in a particular area of work such as bathroom remodelling, kitchen cabinetry or reroofing. Many small firms that build single-detached houses do renovation work on a regular basis.

The housing industry in Canada, then, is characterized by a reliance on the private sector to develop land, to build new housing and to renovate the existing housing stock. Most firms in the industry are small, subcontract most of their special trades requirements and have a modest output, though a few large builders account for a significant portion of the production. Members of the industry typically operate in a limited number of market areas.

CONSTRUCTION TECHNIQUES

The most prevalent form of housing in Canada is the single-detached house, a one-storey or two-storey dwelling unit separated on all sides from other dwellings on its own piece of land. With kitchen, bath and laundry facilities, three or more bedrooms, dining and living areas, the typical single-detached house has changed little in appearance, structure or functional performance over the postwar period.

The vast majority of Canadian housing, both low-density and high-density, is built on-site. This reflects the efficiency of Canadian site-built housing technology and the adaptation of methods of construction to the realities of the Canadian market place — a geographically dispersed demand, non-standardized house designs and a multitude of individual buyers. Builders make extensive use of prefabricated components such as roof trusses, windows, kitchen cupboards and vanities, and an array of sheet materials. On-site labour in turn makes extensive use of power equipment. Most builders hire their labour through specialized subtrade contractors and so, as a consequence, have comparatively small in-house staffs.

Construction techniques for single-detached houses have not been stagnant over the postwar period. But the change has been evolutionary. See Table 2. Both the utilization of prefinished materials and sheet materials as well as power tools on-site have occurred in response to rising real wage rates in the construction industry and the continued search for enhanced profitability. Roof trusses, the use of waferboard or plywood, and the use of prefabricated windows, cabinetry and chimneys have taken place in the postwar period. As a result, the amount of on-site labour to build a typical house has been reduced significantly.

In the past forty years there have been significant changes in both the typical apartment product as well as in the construction process. Whereas the typical apartment in the late 1940s was in a low-rise structure (less than four storeys), new apartments today are built mostly in high-rise structures served by elevators. A combination of influences including the cost of land and municipal planning policies led apartment builders to respond to the expanding demand for rental accommodation in the 1950s and 1960s by building "up" rather than "out." The shift was first to medium-rise and then to high-rise structures, with the height limited only by the prevailing levels of elevator and building technology. The introduction of flying forms and building construction cranes from Europe led to significant productivity improvements in high-rise apartment construction in the early 1960s. As with the single-detached house, apartment buildings in Canada are rarely built utilizing factory-built techniques, although a wide range of prefabricated components are used.

Table 2 **Single Detached Housebuilding Technology: Examples of Evolution in Processes**

Process	Practice		
	1946	1966	1986
Excavation	Bulldozer	Backhoe	No change
Basement	Concrete block and site-mixed concrete used with site-built board formwork. Boards then re-used as wall and roof sheathing.	Transit-mixed concrete used with prefabricated formwork.	Little change but some spread of preserved wood foundations.
Wall framing	Platform frame. Some stationary assembly line processes. Little use of power equipment or piecework subtrades.	Precut studs; tilt up, stationary assembly line with sequencing of piecework produced by sub-trades.	Little change.
Roof	Laid out and erected by skilled tradesmen.	Introduction of engineered, prefabricated roof trusses into general use.	Little change.
Wall and roof sheathing	Boards.	Plywood sheets.	Waferboard sheets.
Siding	Wood clapboard, brick and stucco.	Precoated aluminum and hardboard introduced.	Introduction of vinyl siding.
Plumbing and heating	Site-fitted and installed.	Prefabricated chimneys; some ductwork subassemblies.	All-plastic plumbing. Chimneys and flues prefabricated.
Interiors	Wet-finished with plaster, cured and brush painted.	Dry-finished with drywall and roller painted.	Little change.
Windows/ cabinetry/ doors	Fabricated on site.	Prefabricated windows, cabinetry and countertops.	Introduction of prehung doors and prefabricated stair units.

RESEARCH

Most housing research in Canada, particularly of a technical variety, has been carried out largely by or with the financial assistance of the federal government. Industry associations have been active in encouraging housing research, but most research undertaken under their auspices has also been done with government funding.

There are clear reasons why few firms in the housing industry undertake or sponsor technical research financially, though they are generally receptive to the adoption of proven innovation. As previously noted, most housing firms are very small, and small firms in a market economy have little incentive to initiate research because of their inability to capitalize on the results of the research.

In addition, most technological improvements are evolutionary in nature and under Canadian patent laws often cannot be protected from being copied without compensation. For these reasons government plays a predominant role in housing research of all kinds. This research has resulted in such successes as the development of extensive building codes, rigorous standards for thermal performance and accurate estimates of the direct and indirect impacts of residential construction for use in macroeconomic planning.

WHY IS THE HOUSING INDUSTRY THE WAY IT IS?

Why are there so few large housing firms in Canada? Why is factory-built housing not common? Why does the housing industry spend so little on research? The answers to these questions reflect the environment in which the housing industry operates.

GEOGRAPHICALLY DISPERSED MARKETS

As noted above, the Canadian population is spread over an immense continental land mass. While most of the population lives within a 200-kilometre band north of the U.S. border, this band stretches for more than 6,400 kilometres. The largest metropolitan market (Toronto) accounts for less than 15 per cent of the country's population. Only three metropolitan areas have populations in excess of one million. The remainder of the population is dispersed among hundreds of cities, towns, villages and hamlets.

HETEROGENEOUS CONSUMER DEMAND

The housing industry is faced with a multitude of demands for housing, ranging from smaller to luxury rental apartments and townhouses, from homes for first-time buyers to more elaborate homes for those purchasing for the second or third time, and from condominium apartments for younger childless couples to retirement housing for senior citizens. Consumers exhibit considerable differences in the types of housing they want, the location, the amenities and the price or rent they are willing to pay. Moreover, community and neighbourhood features such as the proximity of housing to schools, shopping and recreation facilities enter into the housing decisions of many consumers.

A geographically dispersed and heterogeneous market is not unique to housing. However, when combined with the next two characteristics, the housing industry, as well as the entire construction industry, is indeed unique.

IMMOBILE PRODUCT/HIGH TRANSPORTATION COSTS

Housing consists of both a structure and a site. Unlike the vast majority of manufactured consumer goods, both new and renovated housing are tied to specific sites. While the structure can, in theory, be produced in its entirety in a factory, as are most consumer goods, the bulkiness of such a product and the costs of transporting it make such a process very costly as distances increase.

Thus, most residential construction takes place on-site, because it is generally more economic to bring the labour and material to the site rather than build the structures in a factory. As previously noted, use is made of prefabricated components on-site, but the fact remains that even in a highly developed country like Canada, it is still efficient to make extensive use of on-site labour.

LOCAL REGULATIONS/ KNOWLEDGE

During much of the postwar period, the regulation of building was a municipal responsibility. The result was a proliferation of dissimilar regulations which discouraged builders from operating simultaneously in a large number of municipalities. The promulgation of a National Building Code by the federal government assisted in providing some uniformity in building codes, but its adoption by municipalities was voluntary. Over the past decade or so, most provinces have adopted province-wide building codes modelled on the National Building Code which are applicable to all

municipalities in their jurisdiction. However, the enforcement of the code generally remains at the municipal level, resulting in a variety of local interpretations. Still, province-wide codes have certainly helped bring more uniformity into building regulations.

There is still a tremendous disparity among municipalities in such things as building permits, site planning and residential land development requirements. For the most part these are totally under the control of individual municipalities. Builders and developers have to become familiar with these local procedures and regulations to operate successfully in a given municipality.

The extensive involvement of such a large number of municipal authorities in the building and land-development processes has been one factor that has acted to retard the growth of large firms operating in a large number of market areas.

EASE OF ENTRY

Little capital is required to enter the homebuilding industry, at least for the new single-detached housing and renovation sectors, since suppliers and sub-trades often provide materials and services on credit; and land developers often provide terms as well. Moreover, the principals of very small firms do much of the construction work themselves. As a result, small firms are able to enter and leave the industry rapidly, depending on local economic and housing market conditions.

However, there are more noticeable barriers to entry for apartment developers and, especially, land developers. Substantial initial capital financing is now required. In many municipalities, the time required to convert raw land to serviced residential lots may be several years. Financial requirements imposed on land developers by municipalities also tend to promote larger land development firms, as do federal tax laws dealing with the costs incurred by such firms in carrying their land inventories.

THE CYCLICAL NATURE OF HOUSING

Because of the lengthy production period for new housing, which ranges from several weeks for single-detached houses up to several years for serviced land in many municipalities, there is a lag in the housing industry's response to changes in underlying economic and market conditions. This results in periodic overbuilding with a consequential increase in risk to firms in the homebuilding industry.

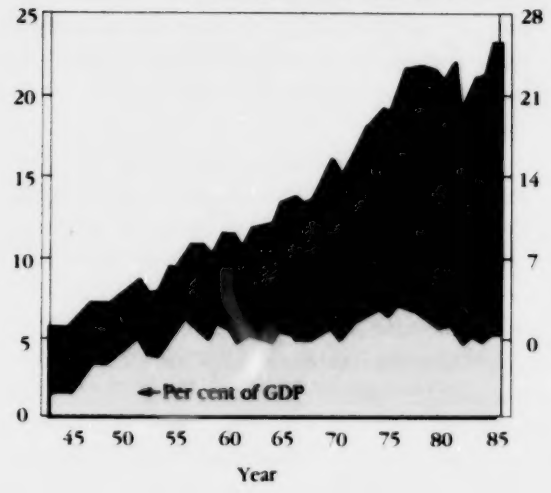
WHAT ARE THE ECONOMIC IMPACTS FLOWING FROM HOUSING?

In times of a substantial backlog of demand or very strong demographic pressures such as increased migration from rural to urban areas and a large growth in the numbers of young adults, the Canadian experience has been that housing production can indeed be an important contributor to economic growth. Conversely, when demand circumstances become less favourable, the economic importance of housing lessens.

TOTAL RESIDENTIAL CONSTRUCTION ACTIVITY

The volume of residential construction activity accelerated rapidly during the first three decades after the Second World War.[2] See Figure 1. As a proportion of the country's gross domestic product, the direct role of residential construction nearly doubled over this period — from 4 to 7 per cent. In response to lessening demand forces, the economic role of residential construction subsequently declined over the ensuing decade to 5 per cent of gross domestic product at present. This decline took place in spite of a continuing rise in spending on improvements during the past decade.

Figure 1 **Real Residential Construction Spending, Canada, 1942-1985**



Note: A revised data series commenced in 1961.

Source: Clayton Research Association, based on Statistics Canada data.

NATIONAL EMPLOYMENT IMPACTS

The total economic impact of residential construction, as with other economic activities, is significantly larger than its direct contribution. The total economic impact, using job creation as the indicator, includes, in addition to jobs created directly in the construction industry, indirect impacts (the jobs created in ancillary industries producing materials and service inputs for construction activity) and induced impacts (jobs generated as a result of the spending of incomes from the direct and indirect jobs created).

Residential construction spending in Canada in 1985 resulted in the ultimate creation of one million person-years of employment. Of this employment, approximately 30 per cent was generated in the construction industry itself and 70 per cent in other industries (largely manufacturing, trade and services). Thus, for every person-year of employment created by residential construction directly in the construction industry, about 2.3 jobs were generated in other sectors of the economy. See Table 3. It should be noted that renovation construction activity has a larger economic impact than spending on new housing since the former is more labour intensive (assuming of course the renovation is undertaken by contractors and not by homeowners themselves).

Table 3 **Employment Impacts by Industry of Total Expenditures on Residential Construction, Canada, 1985**

	Thousands of Person-Years			
	Direct	Indirect	Induced	Total
Construction	309.0	2.4	8.1	319.5
Manufacturing	0.0	131.1	78.7	209.8
Transportation, Communication and Utilities	0.0	25.3	41.0	66.3
Trade	0.0	51.9	139.2	191.1
Finance, Insurance and Real Estate	0.0	12.4	98.2	50.6
Service	0.0	38.9	95.8	134.6
Other:				
Agriculture	0.0	2.3	32.2	34.5
Forestry	0.0	7.4	0.9	8.3
Fishing, Hunting, etc.	0.0	0.1	0.7	0.8
Mining, Minerals and Related	0.0	2.9	1.6	4.5
Total Other	0.0	12.7	35.4	48.1
Total	309.0	274.6	436.4	1,020.0

REGIONAL EMPLOYMENT IMPACTS

Because so much residential construction activity is done with on-site labour, a large component of the economic impact stays in the locality where the construction takes place. Within the distinct economic regions in Canada, the proportion of the direct and indirect jobs created from residential construction which stay in the region where the construction takes place ranges from 70 per cent in the Atlantic Region to 86 per cent in Ontario.

The economic benefits from residential construction spending undertaken in any region are positively related to the degree of diversification of the region's economic base.

HOW HAS THE HOUSING INDUSTRY RESPONDED TO ITS CHANGING EXTERNAL ENVIRONMENT?

The housing industry in Canada has gone through immense change over the past forty years. This has to a considerable degree been the result of private-sector firms responding to changes in the housing marketplace. It is also a product of government initiatives which have directly or indirectly affected the nature and structure of the industry.

CHANGES IN TOTAL DEMAND

The housing industry, especially the single-detached building and renovation sectors, is typically a very competitive industry. Hence, the response by housing firms in a market economy to changes in the demand for housing is predictable. When demand increases, prices rise, resulting in higher profits for firms in the industry. This encourages existing firms to expand their operations and new firms to enter the housing industry. The converse is true when demand falls. The fact that the housing industry cannot react immediately to changes in demand because of the lengthy construction time period adds to the risks assumed by housing firms.

The exact nature of the housing industry's response to changing levels of demand is of course influenced by the factors previously noted, which affect the structure of this industry. In Canada's case, the industry's response to changing demand conditions has consisted of small firms entering and exiting the industry and medium-sized and large-sized firms expanding or shrinking their operations as conditions warrant.

In times of economic weakness, government, especially at the federal level, has encouraged a reluctant housing industry to build through various means, including the provision of grants to purchasers, the provision of mortgage funds when private funds were scarce, or buy-back guarantees to builders. All three mechanisms have been employed at varying times over the last forty years. In the immediate postwar period there was a widespread fear of a prolonged recession. The federal government provided buy-back guarantees to builders of both ownership and rental housing in the event that a private-sector demand failed to emerge. In recent years, partially to offset high interest rates, the federal government provided incentives to investors in new rental housing and to buyers of new ownership housing. In a similar vein, federal government incentives have encouraged renovation spending, especially on energy related work.

At the present time, no special federal government incentives are required to encourage the construction of new market housing.

SHIFTS IN PRODUCT DEMAND

The housing industry has exhibited a considerable capacity to respond to changing demands within the marketplace. Major demand shifts have included: a shift from first homes for young families in the 1950s to rental apartments and more elaborate homes for second and third time buyers in the 1960s; to first homes again as well as a growth in renovation in the 1970s; and to larger, more luxurious houses, more renovation and "lifestyle" housing for couples whose children have formed their own households — the so-called "empty-nesters" and seniors in the 1980s. These shifts in demand also resulted in changes in the nature of residential land requirements.

Many firms reacted to these changing demand forces by diversifying their operations. Medium-sized and larger single-detached builders often expanded into land development and apartment development. Some small builders also began to undertake land development to satisfy their own needs. Small builders also moved into residential renovation construction, although larger builders have tended to ignore this growing market segment. Many sub-tradesmen such as carpenters and bricklayers began their own home-building firms when demand for single-detached houses was strong, and returned to the practice of their trade when demand declined.

RISING COSTS

Over much of the postwar period the housing industry in Canada has been faced with inexorable increases in serviced land prices and construction labour costs, both of which have outpaced overall inflation by a considerable margin.

The industry responded to rising land costs by increasing densities and reducing lot sizes. The appearance of higher-density apartments and shifts away from single-detached houses to low-rise apartments, townhouses and semi-detached dwellings were all responses to rising land prices. The lot sizes for new single-detached houses have shrunk as well. Whereas lots of up to 500 square metres or larger were common for single-detached houses after the Second World War, in high-cost markets like Toronto today, lot sizes have been reduced to as small as 275 square metres.

Rising real labour costs have encouraged builders to adopt labour saving methods on-site and to use prefabricated components built by less skilled, lower-cost labour off-site.

WHAT HAVE WE LEARNED?

A review of the Canadian housing industry and its evolution over the past forty years suggests a number of lessons which may be useful.

ESTABLISH A STRONG PARTNERSHIP BETWEEN THE PRIVATE SECTOR AND GOVERNMENT

A reliance on the private sector and the powerful incentive of the profit motive, guided by government through well-developed and administered building standards and codes, has provided Canada with one of the highest standards of housing in the world. The public sector has played an important role in the success story. In Canadian experience, governments have recognized and utilized the private-market mechanism to produce housing in the numbers and the types that are affordable to most Canadians. They have also exercised a stabilizing role during times of economic uncertainty or recession. Government itself has established the framework for the provision of housing and to ensure its quality and standards, but has not built the housing. In addition to creating the framework for the effective and efficient functioning of the private market, governments in Canada have played a significant role in housing low-income people whose housing needs are not usually responded to effectively by private-market forces.

THE STRUCTURE OF THE HOUSING INDUSTRY AND THE TECHNOLOGY UTILIZED DEPEND ON INDIVIDUAL CIRCUMSTANCES

The Canadian housing industry is a product of the social, economic and political structure of Canada. Even within Canada there are variations in the nature of the industry and the technology it employs. The harnessing of private-market forces has created an industry which reflects Canadian circumstances and responds to Canadian needs. The Canadian industry is efficient for the circumstances in this country at the present time. In other countries the nature of the industry will, by necessity, reflect different institutions and circumstances. While models of Canadian industrial organization may not necessarily be applicable to other countries, Canadian building technologies can be easily transferred, as may be seen from their adoption, in varying degrees, in a number of countries throughout the world.

HOUSING CAN BE AN IMPORTANT AGENT OF ECONOMIC GROWTH

Residential construction activity in Canada has played an important role in the economic advancement of the country. Housing has had the advantage of being labour intensive, focusing much of its economic benefit in the locality or region where the housing is constructed. It is required in all parts of the country and has considerable economic ripple effects beyond the actual building site. It is well suited for use as a tool of macroeconomic stimulation if necessary.

THE NATURE OF HOUSING CONSTRUCTION WILL REFLECT CIRCUMSTANCES AT THE TIME

The housing industry in Canada has shown a remarkable ability to change in response to changing economic and market conditions. Canada's industry increased its productive capacity sevenfold in the thirty years from 1946 to 1976. It retrenched equally dramatically over the next six years and has since expanded again.

Our industry has introduced and exploited new construction technologies, often in partnership with the research and development initiatives of Canadian governments. The evidence of successful adaptation to change in the past suggests very strongly that the industry will be equally capable of responding effectively to the evolving markets and circumstances of the future.

CONCLUSION

The foregoing has demonstrated that very considerable progress has been made in housing in Canada since 1945. It also illustrates that although Canadians are among the best housed nations in the world, challenges remain to be overcome by private industry and governments alike.

Canada's experiences are, of course, unique to itself in many ways. They are a reflection of the state of affairs in the immediate postwar period, of geography, of population distribution, of economic development, of regional variation and the need in 1945 to resurrect a moribund residential construction industry. Nevertheless, there are a number of elements of Canadian experience which may hold lessons for other countries in similar circumstances. Our experience demonstrates the ability of the private market to supply the housing requirements of a rapidly developing country within a framework of regulation and support established by the public sector. It shows the success of the incentive this provides for the evolution of an adaptable industry capable of responding to emerging needs and preferences. Furthermore, this experience has demonstrated the important role of residential construction in national economic development. Housing has made a significant contribution to the generation of employment in all parts of Canada and as such has, in times of economic downturn, been utilized as a means of creating jobs and national wealth simultaneously.

As we have seen, Canadian housing production has tripled the housing stock, creating almost six and a half million new dwellings in the postwar period. In achieving this huge production there has been a significant reduction in the amount of substandard housing and overcrowding.

Canadians enjoy a high rate of homeownership as a result of the economic prosperity which Canada has experienced since 1945 and of a conscious policy of liberalizing the terms of mortgage funding in order to sustain such a pattern of consumption. Their quality of life has been enhanced by the creation of an elaborate regulatory framework covering all phases of housing production and community development.

Considerable credit for these accomplishments must be given to the industry which emerged to build the housing in the post war period. It was practically non-existent in 1945, yet within thirty years it had grown to the point where Canadian builders, property developers and building technologies were world class. Noteworthy in this evolution is the continued predominance of small firms in the Canadian residential construction industry and its reliance on site-built technologies, which to this point have been preferred by consumers over factory-built alternatives.

This industry structure is a reflection of the relatively small, geographically dispersed markets, with individual local regulations, in which housing is produced. This segmentation is a source of considerable strength. The industry is able to adjust to periodic economic cycles and to provide housing cost-effectively within a wide array of regulatory and market frameworks. It has proven capable of assimilating new production technologies to the extent that the demand for them has been present in the marketplace.

Despite our accomplishments, we still face a number of challenges on the road to housing progress. There are still many Canadians who are inadequately served by the marketplace and for whom government assistance is required to ensure that they are adequately housed. The aging of Canada's population presents a number of challenges to public and private sectors alike, and we are only now beginning to seriously consider new and more innovative ways of dealing with the housing needs of this emerging population. We are learning much in this regard from other countries.

Our industry, too, is in a state of transition. Canada's housing requirements are projected to decline considerably over the next two decades. We simply will not need to produce as many units as we have in the past unless the trends in our population growth change dramatically. While the markets for new production are shrinking, they are also becoming more discrete. Our industry will have to develop enhanced capabilities to identify and cater to these newly emerging markets. Vast, homogeneous suburban tracts are not the vision of the future.

Similarly, an industrial capacity must be nurtured which is capable of responding to the emerging economic importance of the renovation of Canada's existing housing stock. As the century comes to a close, a considerable proportion of our stock will require the upgrading of its electrical, plumbing and mechanical systems in order to preserve its operating efficiency. This presents the prospect of a great deal of labour-intensive work which, to some extent, will replace that lost through the decline in new production. It will also entail the development of an industry with a different mix of skills from those required for new construction. We are only just starting to explore this important new field and in many ways face the same challenges as the policy makers of the postwar years who were faced with the need to stimulate the production of large volumes of new housing.

The policy environment in Canada is well-attuned to the development of jointly shared solutions to issues in the housing field. A wide reaching network has been established between all the participants active in the production, consumption and regulation of housing. We are attempting, more than ever before, to identify commonly shared issues and to develop and implement a full range of responses. We recognize and are building upon the diversity of Canada in an effort to avoid inflexible solutions to problems which vary widely across our many regions. Perhaps this flexibility of approach and the mutual benefits of cooperation are among our more important contributions to the universal body of knowlege of how best to ensure safe and adequate housing appropriate to the circumstances of the world's people.

Notes

Housing Progress in Canada Since 1945.

1. Although there are some variations in detail, postwar Canadian censuses broadly define an urban area to be a continuously built-up area containing at least 1,000 persons.

2. A private dwelling is a set of structurally separate living quarters with a private entrance from outside or a common hall, lobby, vestibule or stairway inside the building. The entrance to the dwelling must be one that can be used without passing through the living quarters of someone else.

3. In the 1941 Census, only 368,000 persons were enumerated in collective dwellings. The remaining 11.1 million lived in private dwellings.

4. There were considerable regional variations. Overall, 81 per cent of dwellings were owner-occupied in Prince Edward Island, compared to just 45 per cent in the Province of Québec.

5. Again, there were important regional variations. In Montréal, single-detached structures made up less than 7 per cent of all dwellings in 1941. In Toronto, the figure was 37 per cent, and in Vancouver it was 75 per cent.

6. In counting rooms in private dwellings, the 1941 Census excluded halls, bathrooms, closets, pantries and alcoves, attics and basements unless finished off for living purposes, and sunrooms and verandas unless suitably enclosed for occupancy at all seasons. There were important regional variations, with the largest average dwelling sizes in the older Atlantic provinces, and the smallest in the more recently settled Prairie provinces and British Columbia.

7. In the census, a dwelling was defined to be in need of major repair if it had sagging or rotting foundations, faulty roof or chimney, unsafe outside steps or stairways, or an interior badly in need of repair (large chunks of plaster missing from walls or ceiling, for example). The incidence was also higher in rural and smaller urban areas. Among large cities, it ranged from just 12 per cent in Ottawa to 25 per cent in Edmonton.

8. In Ontario, Manitoba, and British Columbia, only between 45 and 56 per cent of dwellings were heated by stoves. In the other provinces, the incidence ranged from 68 to 78 per cent. In large cities, reliance on stove heating was quite rare, except in Montréal (at 62 per cent)

and Québec (64 per cent). In Alberta, which has extensive gas and oil reserves, the incidence of natural gas as a fuel was considerably higher.

9. Excluded here are cases where water was obtained from a hand pump located within the dwelling.

10. Such amenities were considerably more commonplace in urban dwellings. Among large cities, only Edmonton had fewer than 80 per cent of dwellings with flush toilets. Only Edmonton and Québec had fewer than 75 per cent of dwellings with bath or shower.

11. See O.J. Firestone (1951), *Residential Real Estate in Canada*, University of Toronto Press, p. 49.

12. A household is defined to be the collection of individuals living in a dwelling. For census purposes, every person is attached to one particular dwelling (her/his usual place of residence). A household thus consists of those individuals who identify that dwelling as their usual place of residence.

13. H. Carver (1948), *Houses for Canadians: A Study of Housing Problems in the Toronto Area*, University of Toronto Press (p. 74) reports that Toronto households with annual incomes below $1,000 spent on average about 40 per cent of their income on shelter in 1941. Among households with incomes of $1,500 to $2,000, the figure was just 21 per cent.

14. About 6,000 moderately priced dwellings were built in the four years that this program was in operation.

15. Only 4,900 dwellings were built before the Dominion Housing Act was replaced by the National Housing Act of 1938.

16. Although the 1938 NHA did provide for low-interest loans to local housing authorities for the construction of low-cost rental housing, this provision was never implemented. It was only with the 1949 amendments to the NHA that it began to be used.

17. From its enactment in 1942 until its termination in 1975, the Veterans' Land Act assisted in the construction of about 40,000 new dwellings.

18. In 1941, Wartime Housing Limited was created to provide rental accommodation for war workers in areas of housing shortage. This was not explicitly a low-income rental subsidy scheme, although it was geared to workers of modest income. As the war wound down, this program was merged with the Veterans' Rental Housing Program. About 50,000 rental units were constructed under the two programs. In the late 1940s and early 1950s, most of this stock was sold off.

19. Although there was also a census in 1986, the results were not available at time of writing.

20. The census definition of a family used here is: either two spouses plus co-resident never-married children, if any, or a lone parent plus one or more co-resident never-married children.

21. In the 1970s, there was also a marked migration of people into Alberta linked to the oil boom.

22. In a census, a dwelling is the usual place of residence. Therefore, census counts of dwellings largely ignore housing that does not have anyone usually resident, a seasonal or second home, for example. As a result, the rapid postwar proliferation of seasonal homes in Canada has gone largely unreported in censuses. A 1977 survey found that 6 per cent of households (excluding collectives) owned second residences.

23. Higher in the Atlantic provinces, and lower elsewhere in Canada

24. In the 1981 Census, respondents were asked to indicate whether their dwelling was in need of repair, excluding desirable remodelling or additions. Possible responses included "needs only regular maintenance," "needs minor repairs," and "needs major repairs." Instructions were given to respondents that major repairs referred to defective plumbing or electrical wiring, structural repairs to walls, floors, ceilings, and so on.

25. See J.R. Miron (1987). *Housing in Postwar Canada: Demographic Change, Household Formation, and Housing Demand*. McGill-Queen's University Press.

26. Ibid., Chapter 6.

27. For example: Old Age Security, Guaranteed Income Supplement, and Canada/Québec Pension Plan.

28. Including Unemployment Insurance, the Canada Assistance Plan, work programs, and a variety of provincial, local and third-sector welfare programs.

29. Collective dwellings include hospitals, nursing homes, hotels, tourist homes, lodging houses, work camps, staff or student residences, or barracks.

30. Prior to 1954, chartered banks were prohibited from originating residential mortgages. However, this was restricted to mortgages insured under the National Housing Act. It was not until 1967 that chartered banks were allowed to originate conventional residential mortgages.

31. CMHC has always had a small residual lending role where private lenders were not available or were unprepared to cooperate. In 1957, when market interest rates rose above the ceiling set for NHA mortgages, the federal government briefly flirted with widespread direct lending. In all, 17,000 dwellings were financed in 1957 and 27,000 each in 1958 and 1959. Needless to say, this put a severe strain on the federal treasury, and the program was soon drastically altered.

32. Mortgages were issued by approved lending institutions, but held jointly by the lender and the federal government. By advancing a percentage of the mortgage amount to the lender at a below-market interest rate, the federal government effectively subsidized the mortgage loan.

33. The insurance program placed a premium on approved mortgages. The pool of collected premiums was used to pay the default losses of lenders. The scheme was designed to be actuarially sound. By reducing the risks of mortgage default, the program encouraged more lenders to participate in the market and at lower interest rates than would have otherwise been possible.

34. Of special note here was the model National Building Code developed by NRC. This code was promoted by the federal building authorities through the 1950s and 1960s, and has been widely adopted by the provinces as the standard for new construction.

35. Actually, the first contemporary use of minimum standards in housing may have been by a local government agency, the Toronto Housing Company, in the Spruce Court Housing Project, 1914.

36. About 195,000 MURB dwelling units were approved, almost one-third of the total starts of apartments and row houses during this period.

37. Housing constructed and operated by private firms with a mortgage subsidy in which developers were assured a rate of return in exchange for making units available on a rent-geared-to-income basis.

38. About 55,600 dwellings were given loans under the Residential Rehabilitation Assistance Program. RRAP replaced a program of improvement loans that had been started in 1955 and assisted about 450,000 dwellings.

39. The federal Assisted Home Ownership Program operated in conjunction with provincial programs in some cases. It provided subsidies or interest-free second mortgages for five years to help make ownership more affordable for first-time homebuyers. About 133,000 households participated in this program between 1973 and its termination in 1978.

40. The Mortgage Rate Protection Program was initiated by the federal government in 1984.

41. In Canada, a building site for a home is commonly referred to as a "lot."

The Residential Construction Industry: Perspective and Prospective

1. In Canada, a building site for a home is commonly referred to as a "lot."

2. Residential construction for purposes of the National Accounts includes the construction of new residential structures and improvements to the existing stock. Excluded are repairs to the existing stock or the development of land for housing. However, firms undertaking repairs and residential land development are considered part of the housing industry in this chapter.

Further Information

The two monographs upon which this summary is based are being produced by the Research Division of Canada Mortgage and Housing Corporation. Enquiries about the monograph *Housing Progress in Canada since 1945* should be addressed to project manager Mr. Peter Spurr. Enquiries about the monograph *The Residential Construction Industry* should be addressed to project manager Mr. Christopher Terry.

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